DC METROPLEX BWI COMMUNITY ROUNDTABLE WORKING GROUP

PUBLIC MEETING

Fifth meeting of the DC Metroplex BWI Community Roundtable Working Group

Tuesday, July 18th, 2017

MAA Offices 991 Corporate Boulevard Linthicum MD 21090 Assembly Rooms A/B

7:00 PM - 10:00 PM

DRAFT MEETING MINUTES

PARTICIPANTS

Lance Brasher, Chair*

Evan Reese, alternate for Mary Reese*

Erica Wilemon* Rusty Toler* Ellen Moss*

Robert Owens, FAA

Greg Voos, NBAA (absent)

Dan Klosterman*

David Scheffenacker, Jr.*

Howard Johnson*
Bryan Sheppard*
Scott Proudfoot, FAA

Kyle Evans

Paul Shank, MAA Karen Harrell, MAA Mary Ellen Eagan, HMMH Katherine Preston, HMMH Alverna "A.J." Durham, Straughan Christine Wysocki, Straughan Gary Smith*

Jesse Chancellor* Paul Verchinski*

Marcus Parker (absent)

Steve Alterman, CAA (absent)

David Richardson, Southwest Airlines

Paul Harrell* (absent)

Drew Roth*

Grace Fielhauer, alternate for David Lee*

Ramond Robinson, alternate for Patrick Daly, Jr. *

Richard Campbell

Linda Curry

Christopher Yates, Vice Chair*

^{*}Voting Members

MEETING MATERIALS (APPENDED)

Participants received the following materials in advance:

- Draft Meeting Minutes from June 20, 2017
- Agenda of July 18, 2017 meeting

Displayed at meeting:

- FAA slides on short-term operational measures
- HMMH presentation on historical operations and noise issues at BWI

Provided by Mr. Jesse Chancellor:

- Montgomery County Quiet Skies Coalition Recommendations for Amendments to HR 2997, the 21st Century AIRR Act (3 pages)
- Montgomery County Quiet Skies Coalition Recommendations for Amendments to S 1405, the FAA Reauthorization Act of 2017 and HR 2997, the 21st Century AIRR Act (2 pages)
- DC Metroplex BWI Community Roundtable Working Group Resolution for Chair to compose letter to Maryland congressional delegation and Senators in support of the Montgomery County Quiet Skies Coalition's proposed amendments (1 page)

1. Introductions

Mr. Lance Brasher (Chair) welcomed attendees and began the meeting. He gave an overview of the history of the DC Metroplex BWI Community Roundtable Working Group and the initial resolution to FAA to revert to pre-NextGen procedures. He recapped Ms. Lynn Ray's message on how FAA is working to address the Roundtable's requests and thanked DCA Roundtable members for attending. Mr. Brasher then detailed the list of elected officials who supported the Roundtable.

Review and approve agenda

Mr. Paul Verchinski moved to approve the meeting agenda. Mr. Evan Reese seconded. The agenda is approved.

Review and approve June 20, 2017 meeting minutes.

Mr. Brasher stated that minutes from the June Roundtable meeting are still under review, and the Roundtable will take them up for approval at the next meeting. Mr. Brasher then gave a brief overview of major upcoming agenda items.

2. FAA Presentation on Short-Term Operational Measures

Mr. Robert Owens of FAA reiterated their goal of addressing the communities' issues. He was specifically there to talk about operational measures. Mr. Owens then introduced Mr. Scott Proudfoot of FAA, who is the BWI Air Traffic Control Tower (ATCT) Operations Manager. He has 25 years of experience; works in air traffic control at BWI; and oversees all operational matters, supervisors, and air traffic controllers.

Mr. Proudfoot said he wanted to address concerns and issues from an operational perspective, beginning by explaining historical details around the Metroplex project and providing some of the data requested by the Roundtable. He reiterated that his goal was to provide relief and address concerns. Mr. Proudfoot explained that his operational approach deals with the development and standardization of procedures. What he can impact is the operational, real-time setting, with controllers issuing

instructions. He and Mr. Owens wanted to see what they could do to help assist, while other relief measures are being formalized.

Mr. Proudfoot expressed that the presentation was for educational purposes for the Roundtable and those in the audience. He talked about the amount of data received from their Performance Based Navigation (PBN) partners in support of the presentation, and the difficulty in relating what communities are experiencing with the data provided. His aim was to broaden the attendees' perspectives and understanding, then talk about what he and Mr. Owens hoped they could do to address concerns.

Mr. Proudfoot laid out the order of his presentation. He began by introducing air traffic control, showing how planes are separated, showing tracks over Google Earth plots for neighborhood identification, and pointing out where planes fly over the area.

Starting with TERPZ6 Area Navigation (RNAV) Runway (RWY) 28 departure, Mr. Proudfoot described this procedure. He noted that every aircraft will fly the same course, based on computer flying aircraft for them; however, altitudes differ depending on temperature, weather, and other factors. He showed a slide that depicted actual tracks with altitudes at various points. Flight tracks on course 297 to WONCE fly over Hanover and Thomas Viaduct Middle School versus flight tracks on course 285 that fly west directly off the runway.

He then showed slides with altitudes for a flight on a TERPZ6 RWY 15 departure for various types of aircraft. He noted that each aircraft reached 850' at different places, depending on size, weight of aircraft, and weather. The turns varied in width. Mr. Proudfoot then showed a slide depicting a larger area, showing average altitudes of flights departing on RWY 15R. Flights are typically at 6,000' over SARLY, and 8,400' over WONCE (in Columbia).

(Video did not play.) Mr. Proudfoot went to a nearby friend's house (on Quarterfield Farms Dr) to record a plane flying, then went back and found the aircraft and plotted its track on Google Earth. He stated that if you could see the video, it would show that the aircraft popped over the trees at 1,500' and climbing.

A slide depicting the flight tracks of four different aircraft showed the difference between where in the sky and at what altitude the aircraft reached before making turns after departing RWY 15.

Mr. Owens pointed out neighborhoods on the map and related the content to a figure shared at the last meeting, which depicted notional paths within purple areas. He explained the two types of "fixes" being discussed: fly by and fly over fix. A "fly over fix" means the aircraft is required to fly over a point. A "fly by fix" is where they must fly by the point.

Mr. Brasher noted that in a prior meeting, FAA representatives said in addition to dispersion, FAA could do something to postpone the turn because it was too early and over a neighborhood.

Mr. Proudfoot then discussed Instrument Landing System (ILS) from Runway 33L. He explained that the ILS instrument landing system has a localizer and a glide slope¹, providing lateral and vertical guidance.

¹ The Localizer generates and radiates signals to provide final approach azimuth navigation information to landing aircraft. The antenna sends a VHF carrier signal with 90-Hz and 150-Hz sideband signals that the aircraft instruments determine as left and right of the centerline. In a similar manner as the Localizer signal (just turned 90 degrees on axis), the Glide Slope sends a UHF carrier signal with the same two 90-Hz and 150-Hz sideband frequencies that aircraft instruments determine as above or below the desired glide path. This is approximately 3 degrees to the horizon which gives the aircraft a descent rate of approximately 500 feet per minute. Source: <u>FAA (2016)</u>

Not all runways have ILS. Runway 33L has ILS system, which uses ground-based radio signals (localizer antenna and glide slope antenna). The localizer directs aircraft to the center line of runway. Aircrafts receive the glide slope approximately 15 miles out. If an aircraft is not on localizer, it will be left or right of the runway. ILS is used for bad weather conditions and to back up visual approaches. Mr. Proudfoot showed a slide for the ILS system. The profile view shows crossing altitudes at certain fixes: at JANNS, aircraft is at or above 4,000'; for SPLAT, aircraft is flying 2,400' or above; and GRAFE is 1,500'. No matter where the aircraft joins the localizer, these are the areas aircraft fly when landing on 33L.

Mr. Reese asked about deviations. Once the pilot is cleared for approach she/he can deviate from the glide slope altitudes, so it is up to the pilot at a certain point. For example, aircraft can be lower than 4,000' at JANNS. Mr. Proudfoot agreed that pilots have some discretion, as long as they are below the glide slope and above the Minimum Vectoring Altitude (MVA). Once cleared for visual approach pilots are allowed to navigate laterally and vertically as they approach, so long as they continue on a direct path to their last assigned heading. They can't make a hard deviation.

Mr. Proudfoot then discussed visual approaches to RWY 33L, stating that they always back up visual approaches with the ILS system. He used actual aircraft data pulled from a day in May to demonstrate how a RAVNN arrival comes in over RAVNN. For this flight, the pilot was cleared for approach and descended down to 1,500' about 5 miles before hitting GRAFE on his own.

Mr. Drew Roth asked why this is okay. Mr. Proudfoot responded that it's a rule based on procedure (written) and pilot (personal discretion), and they will be looking at this as a piece of the solution.

Mr. Reese suggested that if this is the way the procedure is written, Mr. Proudfoot could issue restricting altitude.

Mr. Proudfoot brought up the TERPZ6 RWY 15R Bigger Picture slide to show an example. Using the visual approach rule, you will get pilots descending below 2,500'.

Mr. Jesse Chancellor stated that it's an issue in Howard County: pilots get to a low altitude early, far away from the airport (from where they are required to get to the low altitude).

Mr. Verchinski asked if there was a range within which they could get clearance for a visual approach. Mr. Proudfoot confirmed that there is no maximum distance out that a pilot could be cleared for visual approach; and the controller considers many factors.

Mr. Proudfoot's next slide was aircraft going direct to SPLAT.

Ms. Erica Wilemon asked why some planes are directed to different approaches (over highway versus neighborhoods). Mr. Proudfoot stated that some pilots are given clearance for direct SPLAT, direct GRAFE, or direct JANNS.

Mr. Reese asked if FAA had seen a minimum altitude change. Mr. Proudfoot replied that they have not changed.

Ms. Wilemon stated that because of NextGen, the planes are lower because they can glide in, as opposed to how they used to step down in altitude.

Mr. Proudfoot said that back in the late nineties and early 2000's, air traffic controllers did not have fixes. They would use headings to join the localizer. As advancement of technology has come, we now use fixes. Air Traffic Controllers previously had fixes available to use. They weren't used quite as often because of the training that the controllers received. Going direct to a fix on an ILS was not a routine option that was used at that time.

Mr. Roth asked when controllers started doing direct to SPLAT and direct to GRAFE. Mr. Proudfoot said it was back in the 2007-2008 timeframe. [Editorial note from Mr. Owens: SPLAT was deleted in this time frame. Controllers were using the fixes on the ILS more often beginning in this time period.]

Mr. Brasher stated that until a year or 2 ago, he did not have aircraft over his house. The direct SPLAT being shown now fly directly over my house. Mr. Brasher stated that there were, "..about 10 aircraft flew over me from 8:50-9:15. That never happened before [a year or 2 ago]. This is more recent than the nineties."

Mr. Proudfoot stated that SPLAT was taken off the plate in 2007, and put back on in 2011. That was the last time it was moved, and it has not moved since then. Prior to it being moved, it was approximately 1-2 miles closer to the airport. That may be the effect you're seeing now. Mr. Reese stated that he's feeling the pain even farther out. He's seeing 3- to 5-minute intervals flying a lot lower.

Mr. Brasher stated that he did not have planes overhead in 2007. The graphic from 2012 doesn't show SPLAT, and aircraft tracks aren't being shown on the graphic from the October 2016 meeting. Mr. Proudfoot suggested that one reason why SPLAT wasn't being used in 2012 is that controllers had gotten used to it being gone from 2007-2011, so that could be one reason they weren't routing traffic much at that point.

Mr. Verchinski questioned why they couldn't operate without SPLAT, as they were able to previously. Mr. Proudfoot said he could not answer that, as it was a procedure question.

Mr. Roth asked why controllers give pilots direction to go direct to SPLAT, so it should be their discretion not to use it. Mr. Owens said they would address that further in the presentation.

The next procedure discussed by Mr. Proudfoot was the RNAV Z RWY 33L, which looks like a visual approach. He showed the difference between two flights that flew the same procedure, but one was cleared for visual approach earlier than the other, and they descended much earlier; the pilot cleared for visual approach almost immediately descended to lower altitude, under 2,000'.

(Member of audience: That happens at my house 10-15 times a day.)

Ms. Wilemon asked how often the visual approach is granted and planes fly lower.

Mr. Proudfoot then showed a slide that shows what a controller sees. The background of the controller's screen is completely black; neighborhoods are not depicted. Mr. Owens then described what the different colored marks, letters, and icons depict on the slide.

Mr. Proudfoot stated that the RNPZ procedure is not used often throughout day, maybe 10-15 times; however, visual approach in this area does happen often. His next slide conveyed why neighborhoods are not on top of controllers' minds: small shapes and symbols interact on a completely black screen.

Mr. Owens pointed out data blocks for each aircraft and explained that the lines gave reference to particular aircraft. Examples of some screen features include extended imaginary center line, airport runways, and 1-mile dashes. Polygons depict airspace boundaries and restricted areas.

Mr. Roth asked why some planes are designated C and S. Mr. Owens explained that this identifies a Scope or a Facility. DCM is on S, which is south final. C is the universal designator for high-altitude air route.

Mr. Roth replied that S means the plane is on its final approach. Mr. Proudfoot answered that this is not necessarily true; aircraft could be vectoring. Mr. Roth went on to reply that C means flying on route somewhere at high altitude.

Mr. Proudfoot explained that the BWI Tower owns 5 miles out from the airport and up to 3,000'. Outside of this area, the other Air Traffic Organization (ATO), TRACON facilities have control.

Mr. Proudfoot went on to identify main points on the controllers' map. To give an example of what's going on in this airspace, he explained how a plane will fly at 7,000' to miss other aircrafts. He then clarified in Baltimore that if the plane needs to, it can't descend out of 11,000' to land 33L. The Air Traffic Controller (ATC)'s goal is to get under other aircraft flying into this airspace.

Mr. Chancellor asked if a rule existed for minimal separation between aircraft. Mr. Proudfoot replied 3 miles laterally with 1,000' in altitude.

Mr. Chancellor gave a scenario of two flying planes and suggested that WONCE could be higher in altitude. Mr. Proudfoot responded that WONCE is not depicted as a crossing point for altitude restriction; it's only a flyover point. Mr. Proudfoot showed more examples of how airplanes move throughout airspace and explained why it is challenging to move turns with congested airspace between BWI and DC.

Mr. Verchinski asked if these airspace boundaries are a result of NextGen, and Mr. Proudfoot confirmed they are not. He said they've been this way forever. Mr. Roth asked for the date the boundaries were established and Mr. Proudfoot guessed the 1980's.

Mr. Sheffenacker stated that when he bought the Coca-Cola land, planes flew just below (south of) the property. They had to complete a study, so he knows this for a fact. Now, planes are flying right over the community there. They are in the process of building an elementary school. He asked what happened that shifted flights over their property, if the airspace boundaries haven't changed. Mr. Proudfoot said that this is because of equivalent lateral spacing operations (ELSO), a newer rule that states when an aircraft diverges with another aircraft by 10 degrees or more, we can separate them laterally – where planes are diverging by 10 degrees or more, there doesn't need to be 3 miles of separation laterally. When WONCE got moved to create ELSO, it took our departures 10 degrees over to the right.

Mr. Owens explained other features of the controllers' map, explaining that as you're talking to aircraft, you also had to remember to continue to do a continuous sweep to tell what you need to do with the next and next and next planes. There was a randomness that created dispersion that you were used to; but, that also can invite human error and impact safety. Let's take that out of controllers' hands to make sure everyone does same thing. There were a lot of tight situations when someone forgot to turn. When we talk about Metroplex or NextGen driven by safety and efficiency, those are some of the things they took into consideration.

Mr. Ramond Robinson asked if the flights are now standardized, is there anything that can show safety data (e.g., incidents pre- and post-implementation)? Mr. Owens said that would take some research, but anecdotally he believed it to be safer.

Mr. Chancellor questioned how, in all the years flights were in the hands of ATC's, monitoring systems weren't in place to look at incidents and performance. Mr. Owens clarified that it would take some research, and they have a QAQC departments. Mr. Chancellor said this may not be a request of the Roundtable yet, but he was given an assurance that the data exists if they do want it in the future.

Mr. Proudfoot talked more about the different controller decisions being made. Looking at 33L final, one thing that's been talked about is maintaining higher altitudes. In some cases, controllers will do that now for separation purposes. He explained how a controller would direct in a plane to approach; ATCs use altitude sequencing. The controller wants a backup plan; if he forgets about an aircraft or forgets to turn

them, he's got separation with altitude. When a controller is thinking about separating aircraft, they're not looking at a google earth picture. They're not driving planes down in altitude on purpose to create noise.

Mr. Campbell asked if there is a level of altitude that the noise would be higher (less noticeable from the ground), or if it is a function of the plane. Mr. Owens and Mr. Proudfoot did not have an answer.

Ms. Wilemon asked why communities were hearing planes now. Mr. Proudfoot said that pilots might be flying differently; he's unsure. He confirmed that the rules have not changed.

Mr. Robinson asked if the environmental process produced any noise study results. Mr. Proudfoot expressed that he is not an environmental specialist, so he cannot answer. He followed up to say that as long as controllers meet minimum vectoring requirements, we direct the aircraft.

Mr. Brasher stated that the bar for a significant environmental impact due to noise is unrealistically high. Unless you're inside GRAFE or right next to the airport, they're going to conclude as a matter of regulation that there's no significant impact.

Mr. Roth stated that it seems that discussions about visual approaches are not in the scope of the EA for the DC Metroplex; therefore, there have been changes made that are not connected to NextGen and wouldn't be in the EA. Mr. Brasher agreed. If flying to SPLAT and other points are not part of NextGen, where is the EA for these other actions?

Mr. Proudfoot handed the presentation over to Mr. Owens. He began by saying that between each Roundtable meeting, his colleagues meet to discuss possible remedies in an operational setting. He believes operational remedies would be the most expedient way to try to provide some sort of relief, until a standard procedure can be designed. We are exploring possible solutions and potential impacts. We understand you don't want to move the problem down the road to other communities. We're bound by the procedures, but we do have some flexibility (ex. on visual approach). During last Tuesday's conference, we discussed some of the things we thought we could do.

Mr. Owens' first suggested solution was for RWY 285 departures, where aircraft depart and could be given vectors out to TERPZ. This would create dispersion because it would be humans routing the aircraft. Mr. Roth stated that dispersion is good, but it should not be started until after the planes exit the noise zone (referencing Maryland's noise abatement law). Mr. Proudfoot confirmed that planes are not able to take a turn before 3 DME.²

Mr. Sheffenacker stated that the way it is now, flights go over Thomas Viaduct, which is located out of the noise zone. He questioned if that was still subjective, where the pilot can make the decision. Mr. Owens said it was not.

Ms. Ellen Moss stated that southbound departures off RWY 28 are not shown on this map. Mr. Proudfoot confirmed that those flights do comply with the noise zone, as they cross the fix then start a left-hand turn.

Mr. Owens explained that controllers are not currently authorized to take aircraft off of departure; that is why we have concentration. What he and his colleagues proposed is that we give controllers the authority to give fly runway heading, and for pilots to expect radar vectors to join TERPZ 6. What that would give us is almost a re-creation of what you had before. Our intent is to miss certain areas. For us,

² DME stands for Distance Measuring Equipment, and is measured slantrange from the navigational aid located near the center of the Airport. One DME equals one nautical mile.

that requires a request for a waiver; that process is still FAA national, however, it is not us (local FAA people) making the decision. Mr. Roth agreed that this would be an appropriate request.

Mr. Reese stated that TERPZ6 is not complying with Maryland law and noise abatement. Mr. Roth stated that he asked that same question of Ms. Ray, as it seems like that procedure complies. We have not received an answer. Mr. Owens could not confirm, but said this sounds like a logical statement. Mr. Roth believes the answer is obvious: it does not comply.

Mr. Chancellor requested to see what the path would look like, if a waiver was granted. He voiced support for the idea because it could relieve neighbors in Hanover and Elkridge, and added that it may not make a difference for those west of Columbia (that would likely require a procedural change). Mr. Chancellor also asked how far out ATC could effectively vector. Mr. Owens stated that controllers would give one heading, guiding them until they get to a point to turn. He was unable to give a definitive distance. Mr. Chancellor asked if there would be more randomness in flight paths. Mr. Owens stated that WONCE would still be present, but that planes would not be directed there every time. Mr. Chancellor concluded that Columbia might receive relief with the elimination of WONCE.

Mr. Owens reminded the group that this is what is being proposed from the operational side, and others at FAA are still working on procedures. The goal is to create randomness from the 285 heading to WONCE.

Mr. Chancellor stated that he doesn't believe they have enough data to know whether dispersion matters, operationally or procedurally, and if these changes would bring it back to how it was pre-NextGen. He said it's not clear whether this meets terms of the original resolution, and reminded people to remain skeptical.

Mr. Brasher said he thinks those changes are positive from the Roundtable's perspective. If FAA has an intermediate or near-term measure that can mimic flight dispersion and other patterns, the Roundtable is in favor.

Mr. Owens stated that Ms. Ray is committed to taking a fast-track approach to the degree possible, and hopes this focus on speed will also be reflected during the waiver process.

Mr. Reese inquired about the likelihood of the waiver being approved. Mr. Proudfoot stated he's not involved in this process. Mr. Owens expressed that he didn't have a set timeframe but FAA wants to fast track results. He went on to explain that a waiver request could be for so many different things, and it is not always same section/group reviewing each waiver. He gave the example that it could be different review groups for arrivals versus departures.

Mr. Owens began to discuss arrivals. Mr. Proudfoot mentioned that anything changed for TERPZ 6 effects Runways 28 and 15R.

Mr. Owens explained that on calm wind days, the direction of the operation (how we arrive and depart) is based on wind. Three knots or less is considered a "calm wind day." Beyond that, we set the direction which we are departing/arriving based on wind. On calm wind days, we talked about varying the direction of the flow of the operation. Maybe for a period of time during calm wind, our standard and preferred operation would be departing west. Maybe for a couple of hours, we're landing west; another few hours we're landing east. Varying that doesn't do a lot for concentration in which we're arriving in one particular direction, however, it would limit the amount of time one area experienced overhead flights.

Mr. Roth mentioned a similar arrival problem on Runway 10, where planes are flying at low altitudes a long way, and flying over the heart of Columbia. He thought this might be shifting the problem, although, this might be mitigated somewhat if you stop flying at low altitudes for 15-20 miles before the airport. Mr. Owens said Runway 10 is next on the list.

Mr. Reese inquired about the number of calm wind days typically seen at BWI in a month. Mr. Proudfoot remembered Ms. Ellen Sample had this data for the month during the last meeting, and guessed it would be around 8 days or less. Mr. Reese stated that this would not disperse flow that much; and it is inefficient for the airport and complicated for ATCs. Mr. Owens stated that aircraft could take up to 8 knots, if industry agrees.

Mr. Chancellor stated that the potential waivers Mr. Owens discussed would need to be implemented together, or the second one only adds more pain. Both of those would have to be granted to make sense, to disperse more fully. Mr. Roth reminded the group to focus more on pain reduction than pain sharing. What concerns him is that today, with the amount of traffic at airport, it may not sound so bad. Once the door is opened, a situation is created where traffic could increase; instead of one part of our area at max pain, we're all at max pain. That's problematic. Mr. Owens stated that part of the process is for him and his colleagues at FAA to pursue solutions.

Mr. Brasher asked if the suggestion for vectoring being proposed for departures could be used during arrivals. Mr. Owens said ATCs could be trained on limited vectoring to achieve the same type of thing. ATCs would need more exposure and experience. They have a radar simulator that could be used to recreate actual scenarios for practice. They could be taught to incorporate noise sensitivities, in addition to the other considerations (altitude, speed, etc.).

Mr. Brasher asked what was being done now that prevents the dispersion that occurred previously. Mr. Owens gave the educated answer that point-to-point vectoring is occurring.

Ms. Wilemon pointed out that when you hit SPLAT, you're in the most populated and most environmentally sensitive areas of Anne Arundel County. Mr. Proudfoot said that ATCs can go direct GRAFE, if SPLAT is taken out of the equation. Ms. Wilemon believed this solution would not bother anyone.

Mr. Brasher asked how instructions were given previously, when pilots used to be vectored in to land. Mr. Owens responded that before instructions would sound something like "fly heading 360 to join the localizer." These instructions are being chosen based on other traffic. However, with the large usage of fixing, it is possible this would create what you are talking about. Mr. Roth stated that if ATO were to train their controllers to use straight to GRAFE instead of SPLAT, that would help. Controllers could also be taught to have a bias to keep planes higher rather than lower, when sorting the airspace. That would get us closer to the way things used to be.

Mr. Owens agreed and said that retraining is necessary to include noise sensitivity. If there are no other extenuating circumstances, then controllers can consider keeping the planes higher. Mr. Owens stated that planes arriving to the east do not have the same airspace parameters.

Mr. Chancellor explained that farther west of where Mr. Roth works (intersection of Routes 32 and 29), planes arriving from the north are hitting waypoints. As planes are coming in to get on 280, they're coming over Howard County and flying west to come back east. Mr. Proudfoot showed a slide with concentrations of arrivals and departures near WONCE. Mr. Chancellor stated that there is an intersection that sees 200+ planes a day over the same spot. Mr. Roth asked if this was forcing arrivals to lower altitudes. Mr. Proudfoot responded that the planes are not any lower than they used to be, but

may be more concentrated over a certain area. Mr. Roth said he thinks flying at 2,000 feet for about 10 miles, from MD 32 to land, is an issue. Mr. Proudfoot said the standard descent gradient for a plane is 300' for every mile. At 10 miles, 3,000' is about where you want it to be.

Mr. Chancellor shared last month's presentation with Mr. Proudfoot. Mr. Chancellor stated that planes in our part of the county are coming in a narrow corridor; they're on a straight line for many miles, from north, coming to west, going way out west to take a big turn and come back east to land using RWY 10. Mr. Owens admitted that Runway 10 is challenging operationally because airspace is so limited. Usually, ATCs would set a sequence based on being able to turn planes from the south. For Columbia, this is why you would see that long concentration.

Mr. Verchinski asked if the airspace designations can be addressed to allow more space for turns. Mr. Verchinski stated that these limits to airspace were set way back in 1980. If that is correct, with the number of airplanes in and out of BWI, you would think the airspace would've been expanded for BWI and constricted for DCA, because DCA has a very limited number of airplanes that can come in and out. Mr. Proudfoot replied that BWI has the lowest traffic count out of the three major airports in the region.

Mr. Roth stated that Mr. Howard Johnson found the slide from last month showing 2014 and 2016 arrivals on RWY 10. They are stacked in 1,000' intervals. It looks like you have room there to make a bias to be higher rather than lower for arrivals on RWY 10. That would make things better.

Mr. Owens discussed a third alternative, which goes back to broadening education of controllers with vectoring and maybe using some of the empty airspace further east.

Mr. Chancellor agrees that broadening the area where planes can turn may lessen impacts. He asked for mapping to be extended out to District 9 to show more dispersion.

Mr. Owens said that last Tuesday's conference call also considered engaging industry as well, in order to implement higher altitudes during visual approaches. Mr. Reese stated that pilots will comply only if they are obligated, so controllers need to dictate altitude and vectoring. Also, just changing a waypoint is not going to change the density. He asked if there was a waiver that could be requested to keep the planes higher until they get closer to the airport. Mr. Owens stated that he did not think a formal waiver would be needed for all of that, and a meeting is already scheduled with Southwest Airlines to discuss getting that message to pilots. We can't arbitrarily start implementing things before people are aware.

Mr. Brasher summarized FAA's presentation and discussion, and commented that he thought it was constructive. With regards to departures, we discussed getting a waiver for the vectoring. On calm wind days, shifting traffic does not get us where we want to be (reverting to pre-Metroplex). It sounds like vectoring is the answer to producing dispersion. The Roundtable asked FAA to look into how long that will take. If there is a bias that can be employed for controllers to move flights where they were and stay higher, that is in keeping with the resolution. He asked what the next step was and how the Roundtable could help in that process.

Mr. Owens stated that the facilities will have to come together again and present to the union to start the dialog about what it will take to retrain ATCs. Once we get the green light to continue, we schedule training, design training, and get appropriate simulator problem(s) for practice; changes can be implemented within 30 days of training. The process can take up to three months. This may be something that the Roundtable will want to submit to the FAA in writing as a request. The waiver is for the departures, and for the waiver process we're already developing the business case for that.

Mr. Robinson asked if the training would start before the waiver was in place (i.e., approved). Mr. Owens said that training could proceed before the waiver was in place.

3. HMMH Presentation on BWI Noise Overview

Mr. Paul Shank of MAA introduced his presentation, which presented where we are with historical and current operations, flight track information, runway usage, east/west flow, and how airline operations and fleet/mix of aircraft are changing over time.

Ms. Mary Ellen Eagan of HMMH took the floor. She presented trends of air carrier operations and passenger enplanements; trends in operations per year; trends show a decrease from 2012 - 2014, then an increase; and fleet updates throughout recent history.

Mr. Brasher asked about noise levels of particular aircraft types. Ms. Eagan stated that noise levels were not a part of this presentation, though, the information could be provided at the next meeting. Larger planes do not always mean louder noise, as evolution has resulted in quieter engines.

Mr. Gary Smith said he believes DCA worked on not allowing certain [loud] aircraft from flying at that airport. Ms. Eagan guessed that the MD 80 aircraft was the noisy aircraft and suggested the Roundtable works with DCA, as she is not familiar with this tactic.

Ms. Eagan mentioned that quarterly runway use from 2016 can be found on MAA's website. Mr. Brasher asked what caused different utilization rates, and Ms. Eagan replied that the main factor is prevailing winds.

Mr. Shank said MAA will get the data for the prevailing winds, i.e. what percentage of time is considered a calm day. Ms. Eagan showed flow variability (east versus west flow), and noted that there were more west wind days than east wind days during last quarter of 2016. Ms. Eagan mentioned that runway closures did not allow for data trending. Mr. Reese stated that the data is showing planes flying significantly lower than we want them to. Mr. Roth inquired if RWY 15R had a name like east or west flow. Ms. Eagan stated that landing on 15R would be considered west flow. Mr. Shank suggested MAA talks with FAA to see what they can do, as well as a carrier representative to determine what they can do. Specifically, we want to know if there is any way to get planes to higher altitudes. Mr. Shank said an action item for MAA is to map instrument vs visual approach.

Ms. Eagan showed the DC Metroplex timeline. Procedure implementation happened in November 2014. There were concerns immediately over departures, so changes were made. The open house happened in October 2016, and Roundtable meetings occurred each month since March 2017. Mr. Shank said the timeline also used to show runway closures. Mr. Brasher asked for the timeline to be shown with runway closures and the number of complaints included, showing when the complaint numbers increased. Mr. Shank agreed to have closures and complaints superimposed on the timeline. He noted that FAA originally thought closures were causing complaints, however, MAA found Metroplex to be the reason for comments.

Mr. Roth said there were distinct areas impacted by NextGen flight pattern changes and runway closures. When they were closed, takeoffs occurred on RWY 33L (which is never done). Ms. Eagan stated there were changes in TERPZ 5-6 and a shift to WONCE. Mr. Roth said he thought TERPZ 6 would help Hanover, but it did not help because WONCE was also moved.

Ms. Eagan then showed the relevant regulatory framework. MAA operates under federal and state requirements. Maryland has a number of state-specific requirements (Environmental Noise Act 1974, DC Metroplex BWI Community Roundtable Working Group Meeting Minutes for July, 18 2017

predates and was the groundwork for federal standards). Code of Maryland Regulations (COMAR) requires MAA to update Airport Noise Zone (ANZ) every 5 years.

Mr. Reese asked to toggle between RWY 33L arrival slides. 2017 arrival data was noted insufficient.

4. Public Comment

Mr. Scott Wright, Severn: Mr. Wright asked about representation of the area where he lives (Telegraph Road area, near Lucky's and Sunoco).

Ms. Ellen Moss, Jessup: Ms. Moss stated that Councilman Grasso was selected to be on the Roundtable. She attended as his alternate. She offered to be the contact for Mr. Wright.

Mr. Wright stated that NextGen implementation moved flights away from Elmhurst over to where he lives. This benefitted one community to the detriment of another, which is something FAA said they would not do. Mr. Shank explained how NextGen did not think in terms of distance, it thought in terms of altitudes. He directed attendees to look at the graphic of pre- and post-NextGen on MAA's website. He stated that when MAA compared the distance out from the runway to the altitude where planes were taking the turn, they saw this did not comply with noise mitigation requirements.

Ms. Alice Cain, Annapolis. Ms. Cain stated that her house is 25 miles from BWI, and she wishes she did not live there anymore because of daily disruptions from flights. She said it is still not clear what the problem was that NextGen was trying to solve, as she did not see evidence of safety problems or crashes. FAA took shortcuts for implementation, and they need to go back and do it right. They need to go back to the old system until they follow proper protocols. Mr. Brasher stated that this was in line with the Roundtable's original resolution to FAA.

Mr. Brent Girard, representative from office of Senator Van Hollen: We do not need to learn to be ATCs, we need to skip to the solution.

Mr. Jimmy Pleasant, Ellicott City: Mr. Pleasant stated NextGen was about increasing capacity. He said he counts 225 arrivals per day below 4,000'. They turn over top of his house at 6,000', faster than they should. Then he witnesses arrivals at 1,100'. He claimed the FAA told carriers they would give shorter flight paths and save them fuel, so now the flight paths are narrow. He noted that he called his congressman and asked him what the law was on torture, and somewhat jokingly suggested the congressman call the CIA because [planes flying repeatedly overhead at lower altitudes] is worse than waterboarding. He related the experience to Chinese water torture.

Ms. Gail Sigel, Hanover. Ms. Siegel said she appreciated the technical aspects because they helped her understand the issues. She stated that she believes this is the first time FAA presented something that may bring us some relief.

5. Discussion of Roundtable Information on MAA Website

Mr. Verchinski suggested holding off on this discussion until the next meeting. MAA made some changes, but still need to make more.

6. Discussion of FAA Reauthorization Act

Mr. Chancellor distributed a proposed resolution and supporting handouts by the Montgomery County Quiet Skies Coalition, which suggest amendments to the FAA Reauthorization Act. The proposed resolution authorized the Roundtable Chair to send a letter to the Maryland Congressional delegation and Senators in support of the Montgomery County Quiet Skies Coalition's proposed amendment to the FAA bill (the AIRR Act).

Mr. Girard noted that the Senate version of the bill will be voted on much later than the House bill, so there is time for amendments.

Ms. Anne Hollander, DCA Roundtable and Montgomery County Quiet Skies Coalition member, stated that House Bill 2997 includes verbiage covering what they want to see, as far as protections to make things better for local communities. The Senate bill (S.1045; more amendments are anticipated) includes nothing about noise, abatement, or how exposure effects people over time. You can find both the House and Senate bills online. The two bills they have now last through 2022 and 2023. We want to jump on this now because we will not have another shot for 5-6 years. It remains unclear whether this will be completely reconciled in this Congress before September. It is possible the bill will once again be delayed; we should operate on the assumption that it is moving forward.

Ms. Hollander noted that the way noise is measured is quite outdated. She discussed recommendations listed and general reasons for them. The House Bill may come to the floor this week, however, the earliest will likely be next week. It is possible they will not pass these bills before the current authorization expires in September, so there could be an extension. Regardless, we should get our comments into our Representative and Senators. The Montgomery County Quiet Skies Coalition has been briefing our representatives for the last 6 months. Our next working group meeting is coming up in the next 7-10 days.

Ms. Hollander mentioned that the updated recommendation language would change the FAA's mission statement to include a secondary consideration of noise, health, and environmental impacts. It would also require FAA to mitigate the negative impact and develop modern noise metrics. We want clarification that FAA is required to follow NEPA. We need more funding to study the impacts. We would like the repeal of the Airport Noise Capacity Act, because it prevents airports to impose nighttime curfews. We oppose air traffic privatization, but if it happens we would like to ensure citizens have representatives on the Board. We would also like to speed up a stage 3 aircraft phase out and see a shorter authorization period from 6 to 3 years to provide more opportunities to make changes. These recommendations are not in legislative language, so staff needs time to write the actual language to comply with these recommendations.

Mr. Richard Campbell wondered if EPA is responsible for defining noise levels, and suggests that the language here may be too vague to address noise concerns. It gives a great deal of latitude. Ms. Hollander added that the FAA establishes noise levels; EPA is not involved. Mr. Campbell mentioned that representatives from FAA said they adopted their standards and criteria for harmful noise levels from EPA. Ms. Hollander then stated that regardless of history, we can all agree that current noise standards do not consider frequency of noise and long-term impact(s).

Ms. Hollander welcomed Mr. Campbell and the Roundtable's recommendations. She believes the FAA needs to address frequency of noise. Currently, there's no absolute threshold above which noise causes harm; it's more complicated than that.

Mr. Reese asked why "2a" only focuses on departures and not arrivals, then suggested an update ("all flights, at a minimum departures and arrivals").

Mary Reese asked if Ms. Hollander knew of any representative that was sponsoring the effort to amend the House bill. Ms. Hollander said the Maryland delegation has seen the material, including Senators Cardin and Van Hollen's staff, and Montgomery County Representative Jamie Raskin. It has also been shared with the Congressional Quiet Skies Caucus and the leadership of the Transportation Committee.

Mr. Chancellor noted that the Roundtable would need to see any changes that were made to the amendment documentation, so they would be able to update their resolution accordingly. If there are changes, we may need more time. Ms. Hollander reminded attendees of the recommendation to change "2a" to specify arrivals and departures. The only other addition is an item to reduce the effective period of the bill to fewer than 6 years. Mr. Chancellor makes a motion to allow the Chair to write a letter to the Congressional delegation supporting the Montgomery County Quiet Skies amendments.

Mr. Brasher stated that Mr. Shank has some reservations. He pointed out two things: (1) we have a Charter. Mr. Shank suggested this goes beyond scope of our Charter, in terms of changing a law that looks out into the future. Mr. Reese stated that the Charter aims to correct noise issues at BWI, getting at dispersion of flight paths (arrivals and departures), and he believed it was permissible to endorse something like this if it goes towards solving their main problem.

Mr. Shank suggested the Roundtable review the focus of their Charter, which deals with our Metroplex, our airport. As we expand the envelope, it dilutes focus on our airport, our Metroplex issues. (2) Resources: FAA has to go back, find funds, get a task order, and get their consultants to perform the work. My goal as a manager is to keep our budget on Metroplex and BWI. This is the first I've seen of these proposals; however, it is your Roundtable, and I'm just an advisor. I'd suggest any bright idea be allowed to germinate. There are legal ramifications that I do not agree with, based on my understanding. You may need time to react to it.

Mr. Verchinski inquired if MAA had a position at all on federal legislation. Mr. Shank assured him MAA did not, and reminded attendees of MAA's role of advising the Governor. Mr. Verchinski said he asked because he sees the root issue as the DNL (Day-Night Sound Level); it has not been updated since 1981, and will require federal legislation for the FAA to update it. I think it's perfectly acceptable for this Roundtable to make legislative suggestions to deal with noise issues that are basically being ignored by FAA. Legislation is what gets FAA's attention.

Mr. Reese stated that the Roundtable does not have to deal with FAA solely. He views this as "another tool in the toolbox." Congress can hold FAA accountable, to some degree. Mr. Shank stated that this group is fortunate to have Representatives' staff here to relay back information. We learned from other roundtables that if we can stay focused (on BWI and DC Metroplex arrival/departure procedures), that is the best we can do; otherwise, we get diverted. You have to decide if your Charter permits that to happen.

Mr. D. W. Chen said that to precipitate systematic changes to airspace, it may require legislative changes. It also may require roundtable members to assist other roundtables across the country. Some of the things we need to get done require more institutional, larger-picture things. If this Roundtable limits itself to be more provincial, it loses the opportunity to do more profound things.

Mr. Shank mentioned that he and Ms. Ellen Sample of MAA discussed her concern, which is that we recommend the roundtable be narrowly focused. We have other community organizations formed with areas of interest in this too, and these groups are not members of the Roundtable. We are concerned of "getting out of our lane."

Mr. Chancellor expressed that he does not expect to do anything else legislatively, unless it is requested by the Roundtable. He believes this is a unique opportunity, and that the Roundtable almost has an obligation to address the FAA Authorization Bill now because of the lack of time remaining before a congressional vote. If none of these amendments make it into the final language of the bill, at least we have said to our Maryland delegation and two senators on paper that what's being done is inadequate.

We think it's symbolic perhaps because of timing, but at least we are making an official statement. Mr. Campbell voiced his support for this action, as it appears consistent with the Charter and focused on noise.

Mr. Girard reminded attendees that all amendments to the House bill are online and Senator Van Hollen's office would love to hear thoughts from the Roundtable, specifically what on the list of amendments may be helpful regarding your issues.

Mr. Brasher inquired about the timing of the vote, as he would like to allow time for Roundtable members to form an individual, unique perspective. Mr. Girard was unsure about timing, but believes it is coming up soon; if the Roundtable waits until the next meeting, it may be too late.

Mr. Toler expressed that he did not want to vote because he needed more time to closely review the material. At first glance, he thought the information could be improved. He also suggested the opportunity for alternative action, such as asking for an amendment to the law language.

Ms. Hollander noted that much of the language came from other coalitions around the country, and she does not see much more work going into the amendments as they are currently stated. Their affiliates in Washington said the best time to submit this information was last week; we are working on a limited timeframe.

Mr. Brasher expressed that he is in favor of supporting the amendments, as they are in support of the Roundtable's mission. He also mentioned the possibility of using different tools. There's a very narrow issue: we want these rules in place to protect us with respect to this airport going forward. Supporting these amendments is an important way of achieving this. If we have better laws with respect to noise, we would not be in this situation. We could develop a small subcommittee to develop the letter based on the Montgomery County verbiage and our Charter, and agree on exactly what the letter should or should not say. This could be accomplished very quickly. Mr. Toler expressed approval.

Mr. Verchinski thought it would be helpful, since our legislators already endorse the reversion, that we also put in the hopper what we think needs to be done. This is unusual, but we're in a time crunch. He suggested the Roundtable endorse the Montgomery County language with two changes, and label it as a draft (subject to revision). This would allow time to get additional changes in by the next meeting—or we could call a special meeting.

Mr. Roth stated that Mr. Chancellor's wording was an authorization to send a letter of support, which gives Mr. Brasher discretion to make tweaks. He believes this is perfectly appropriate for the Roundtable to do. The Roundtable recognizes there are things in the legal structure that have created this structure that need to be fixed (ex. the application of NEPA).

Mr. Chancellor suggested some edits to the resolution to make clear that the Roundtable is supportive of this effort, but not necessarily in entirety. The resolution will give the Chair discretion to decide what to include focusing on local BWI concerns. Mr. Shank offered MAA's technical assistance in drafting the letter.

Mr. Verchinski made a motion to approve the resolution, and Mr. Toler seconded. Motion passed unanimously. Mr. Chancellor will circulate a copy of the resolution via email.

Mr. Brasher asked for volunteers to help draft the letter, and the following members volunteered: Mr. Reese, Mr. Toler, Mr. Verchinski, Mr. Gary Smith, Mr. Chancellor, and Mr. Roth. Mr. Chancellor will lead the effort, and be mindful in not having a quorum.

Mr. Brasher stated that this is a critical time to make sure FAA is committed to solve our problems, specifically because after they propose solutions and conditions are set in stone, there will be an uphill battle to do more. A lawsuit may be an avenue, but it is a last resort. During a lawsuit, the control is taken away from you, it costs money, and it can be blocked for a bunch of reasons. We are at a point where FAA has committed to helping, they've committed resources, and work is underway; however, they have not sent a concrete set of solutions yet. Therefore, now is the time to reach out to our Congressional Delegation to get them to urge FAA to do their utmost to deliver for us. I would like to have the Roundtable send a letter out to state where we are and to seek their assistance, to make sure that FAA follows through. Mr. Chancellor reminded the group that this ability is granted to the Chair in the Charter.

Mr. Brasher discussed what he was told would be the FAA's process in the near future. They are putting together a PBN working group. He proposed the question to the Roundtable of how engaged they want to be in the process. Ms. Ray wants to have a working group with FAA and MAA to make sure there is info sharing and good communication; there will be some serious and discrete meetings. For the working group, it is impractical for the Roundtable to participate in every event. The question then is how can we participate in this process? Ms. Ray was going to go back to look at their process to see if there would be times it would make sense for a Roundtable representative to attend. Beyond that, I asked her how we could continue to engage. Currently, we have a weekly call with MAA and FAA. Ms. Ray thinks that's too frequent for what they'd be doing. Who would like to be involved, of the Roundtable members? Mr. Reese previously expressed interest, though, it is not limited to one person; Mr. Brasher did not know the level of commitment needed, and considered that it may require a group of Roundtable representatives.

Mr. Roth said the FAA should ask for the Roundtable's feedback before they invest a lot of time in doing the analysis of potential solutions. Mr. Brasher stated that next month's meeting is going to be important, in regard to feedback from FAA.

Mr. Brasher noted that the FAA only showed a finite number of data points, because that was easiest to present. More data is available. The FAA will perform more analysis based on data we request. Mr. Brasher sent an email around earlier requesting for feedback on other data we want to see. Please consider other requests for data. The IOUs for FAA get reflected mainly in minutes, and FAA tries to address IOUs in their presentation to Roundtable. A list from previous meetings is currently being compiled.

An audience member expressed distrust in FAA finding a solution. However, Mr. Roth moved on to say they need to figure out the strategy to deal with this arrangement. The Roundtable will set deliverables and dates, get FAA to agree, then argue to representatives to hold them accountable (should FAA not meet deliverable requests). During the August meeting, the deliverable will be a proposal from FAA; if they fail to provide a deliverable, we have an actionable item.

An audience member stated she would like to hear more solutions for the arrivals side. Mr. Brasher reiterated that the answer on the arrival side is to vector the aircraft the way FAA did previously. Mr. Brasher said it sounded like the training process is not so onerous to train controllers to do this.

Mr. Roth stated that planes also need to be kept higher longer. Mr. Brasher agreed that there needs to be a minimum altitude.

7. Adjournment

Mr. Brasher adjourned the meeting at 11:13 pm.